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10/053,182	01/16/2002	Mano Shaarpour	HALB:031	2848

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EXAMINER

KRECK, JOHN J

ART UNIT PAPER NUMBER

3673

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/053,182

Applicant(s)

SHAARPOUR, MANO

Examiner

John Kreck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The amendment dated 7/21/04 has been entered.
2. Claims 1-26 are pending.
3. Claims 1-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

### ***Claim Rejections - 35 USC § 102***

These rejections have been overcome by the amendment.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-19, 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaleski, et al. (U.S. Patent number 5,826,669) in view of Diamond Seal <sup>TM</sup>.

Zaleski teaches the treating a wellbore with a fluid including a carbon based material to prevent or alleviate lost circulation. Zaleski fails to teach the polymer.

Diamond Seal<sup>TM</sup> is a water swellable but not water soluble crystalline synthetic polymer, disclosed as useful in preventing lost circulation. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Zaleski

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process to have included a water swellable but not water soluble crystalline synthetic polymer as called for in claim 14. It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Regarding independent claim 15:

Zaleski teaches the adding a fluid including a carbon based additive; circulating; and allowing the additive to enter a lost circulation zone. Zaleski fails to teach the polymer.

Diamond Seal™ is a water swellable but not water soluble crystalline synthetic polymer, disclosed as useful in preventing lost circulation. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Zaleski process to have included a water swellable but not water soluble crystalline synthetic polymer as called for in claim 15. It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Zaleski teaches the graphite and ungraphitized particles as called for in claim 16.

DiamondSeal™ includes polyacrylamide as called for in claim 17.

Regarding independent claim 18:

Zaleski teaches the introducing a composition including a resilient carbon based material having graphite and ungraphitized particles; and allowing the additive to enter a lost circulation zone. Zaleski fails to teach the polymer.

Diamond Seal™ is a water swellable but not water soluble crystalline polyacrylamide polymer, disclosed as useful in preventing lost circulation. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Zaleski process to have included a water swellable but not water soluble crystalline polyacrylamide polymer as called for in claim 18. It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Regarding claim 19; although the Diamond Seal™ document fails to disclose the crosslinked polymer, the polyacrylamide sold as Diamond Seal™ is crosslinked.

With regards to claim 21; Official Notice is taken that the use of weighting material is well-known and near universal in drilling fluids, in order to achieve proper density. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the zaleski process to have included weighting material as called for in claim 21, in order to achieve proper density.

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With regards to claim 22; it would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Zaleski process to have the carbon based material in 70-90 lb/bbl and polymer about 2-10 lb/bbl; through routine experimentation. It is also noted that Zaleski teaches about 30-120 lb/bbl (e.g. claim 5) and Diamond Seal <sup>TM</sup> teaches about 1-2 lb/bbl (2-4 10 lb. Pails per 100 gallons is approximately 10-20 lb/bbl \*\*\*note that the previous office action erroneously indicated *2-4 lb/100gal*\*\*\*). Addition of 30-120 lb carbon based material and 10-20 lb polymer, overlaps the claimed range of 70-90 lb/bbl and 2-10 lb/bbl

With regards to claim 23; Zaleski fails to disclose whether the process is used in a vertical or horizontal or directional well. Lost circulation is known to occur in horizontal or directional wells (as taught by the DiamondSeal<sup>TM</sup> reference). It would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the Zaleski process (as modified) in a horizontal or directional well, in order to treat lost circulation in such a well.

With regards to claim 24; Zaleski fails to teach the temperature of the well. Official Notice is taken that wells often have temperature of less than 200°F; and that such wells can experience lost circulation. It would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the Zaleski process (as modified) in a well with a temperature less than 200°F, in order to treat lost circulation in such a well.

With regards to claim 25: Zaleski teaches the material used without reinforcing materials (col. 9, line 22 "used alone").

With regards to claim 26: Zaleski teaches the additive used without bentonite or reinforcing materials (col. 9, line 22 "used alone").

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zaleski and DiamondSeal™ as applied to claim 18 above, and further in view of Christman (U.S. Patent number 3,633,689).

Zaleski and DiamondSeal™ fail to teach the alcohol.

Christman teaches the use of alcohol in drilling fluid, to prevent freezing in cold climates. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Zaleski process to have included alcohol, in order to prevent freezing.

### ***Response to Arguments***

6. Applicant's arguments filed 7/21/04 have been fully considered but they are not persuasive.

7. It is again noted that applicant has asserted that the combinations disclosed in table I reflect a "surprising synergy". Insofar as that table may be relied upon as evidence to rebut the prima facie case of obviousness; it is noted that the table lacks sufficient data to fully evaluate any assertion of unexpected results (e.g. no control values without either Diamondseal™ or Steelseal™ \*\*\*that is, no test with neither Diamondseal™ or Steelseal™ \*\*\*) and there is no evidence that any synergistic effect is greater than what would have been expected. Note for example, the test of 80 ppb Steelseal™ shows 50ml filtrate; and the test with 10 ppb Diamondseal™ shows 59 ml

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filtrate. There is insufficient evidence to indicate whether the 78'ppb Steelseal™ and 2ppb Diamondseal™ filtrate of 39ml is "unexpected" or shows "surprising synergy" since the evidence fails to indicate what the filtrate would be without either Diamondseal™ or Steelseal™. One of ordinary skill in the art would have expected a decrease in filtrate with the combination of the two materials; simply by additive effect. "Superior performance" of the combination is not sufficient to rebut a prima facie case of obviousness.

See MPEP 716.02e: *"A greater than expected result is an evidentiary factor pertinent to the legal conclusion of obviousness ... of the claims at issue."* *In re Corkill*, 711 F.2d 1496, 226 USPQ 1005 (Fed. Cir. 1985). *In Corkhill*, the claimed combination showed an additive result when a diminished result would have been expected. This result was persuasive of nonobviousness even though the result was equal to that of one component alone. Evidence of a greater than expected result may also be shown by demonstrating an effect which is greater than the sum of each of the effects taken separately (i.e., demonstrating "synergism"). *Merck & Co. Inc. v. Biocraft Laboratories Inc.*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). However, a greater than additive effect is not necessarily sufficient to overcome a prima facie case of obviousness because such an effect can either be expected or unexpected. Applicants must further show that the results were greater than those which would have been expected from the prior art to an unobvious extent, and that the results are of a significant, practical advantage. *Ex parte The NutraSweet Co.*, 19 USPQ2d 1586 (Bd. Pat. App. & Inter. 1991) (Evidence showing greater than additive sweetness resulting from the claimed mixture of saccharin and L-aspartyl-L-phenylalanine was not sufficient to outweigh the evidence of obviousness because the teachings of the prior art lead to a general expectation of greater than additive sweetening effects when using mixtures of synthetic sweeteners.).

8. In response to applicant's argument that the alcohol (claim 20) is not used in the instant application to prevent freezing, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.



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See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Applicant has not provided any evidence that the use of alcohol to prevent freezing would have been unobvious.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is (703)308-2725. The examiner can normally be reached on M-F 5:30 am - 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703)308-2978. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-4177.

  
John Kreck  
Examiner  
Art Unit 3673  
**JOHN KRECK**  
**PRIMARY EXAMINER**

JJK